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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
08/886,485	07/01/97	EATON	M 7282

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EXAMINER	
BONAVITO,K	
ART UNIT	**PAPER NUMBER**
2761	3

DATE MAILED: 11/18/98

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary	Application No. 08/886,485	Applicant(s) Eaton et al
	Examiner Kevin Bonavito	Group Art Unit 2761

☐ Responsive to communication(s) filed on _____.

☐ This action is **FINAL.**

☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire *3* month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claims

☒ Claim(s) *1-8* is/are pending in the application.

Of the above, claim(s) _____ is/are withdrawn from consideration.

☐ Claim(s) _____ is/are allowed.

☒ Claim(s) *1-8* is/are rejected.

☐ Claim(s) _____ is/are objected to.

☐ Claims _____ are subject to restriction or election requirement.

Application Papers

☒ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☒ The drawing(s) filed on *Jul 1, 1997* is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on _____ is ☐approved ☐disapproved.

☒ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

☒ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☒ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been

☒ received.

☐ received in Application No. (Series Code/Serial Number) _____.

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____.

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

☒ Notice of References Cited, PTO-892

☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____

☐ Interview Summary, PTO-413

☒ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

DETAILED ACTION

Drawings

1. Figure 1 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g).

2. The drawings are objected to because of reasons detailed on Form PTO 948. Correction is required.

3. Applicant is required to submit a proposed drawing correction in reply to this Office action. However, formal correction of the noted defect can be deferred until the application is allowed by the examiner.

Specification

4. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 250 words. It is important that the abstract not exceed 250 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

5. The abstract of the disclosure is objected to because it contains legal phraseology. The word "means" is considered legal terminology and therefore is not to be used in the abstract. Correction is required. See MPEP § 608.01(b).

Claim Rejections - 35 USC § 112

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claim 6 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Both independent claim 1 and dependent claim 6 disclose a "third layer". It is not clear whether the "third layer" referred to in claim 6 is the same as the one specified in claim 1, or is an additional layer.

Claim Rejections - 35 USC § 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless -(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371© of this title before the invention thereof by the applicant for patent.

9. Claims 1-3 are rejected under 35 U.S.C. 102(e) as being anticipated by Burt et al (5,682,482). Burt et al discloses a plurality of services available on a network through which users can request and be provided with said services, the networks comprising specific hardware and software components (Col. 4 lines 43-44, lines 50-52 and lines 54-64), support systems that support the network, including hardware and software involved in accomplishing the tasks of those systems (Col. 4, lines 65-67, Col. 5 lines 1-11, lines 55-58 and lines 63-67), an operations gateway that interfaces with the networks and support systems (Col. Lines 11-13) and agents (agent interfaces) within the operations gateway which interface with both the networks and support systems and allow necessary and appropriate communications to take place between the networks and support systems (Col. 5 lines 32-41). Similarly, Burt et al discloses the operations gateway as enabling operations functions such as financial related functions to be independent of network elements including network support system elements (Col. 6 lines 56-63). Burt et al teaches receiving financial services from a transaction system accessible through a plurality of networks (Col. 5 lines 19-26) and specifies a possible function of the transaction system as being account crediting and debiting (Col. 5 lines 23-24).

Although the language of the reference Burt et al does not explicitly specify a "multi-transaction service system", an "operation means", "business application services", an "integrated channel manager" (with the specific architectural components) or a "plurality of channels", the network system of Burt is clearly directed towards financial transaction applications. Similarly, Burt et al specifies that a plurality of services are available through the network, and that a host of

management and support systems exist to support the operations of the network. In light of the applicant's broad recitation of "operation means", these support and management systems of Burt et al can be interpreted as such since they indeed are responsible for the operations of the network. The operations gateway of Burt et al can be interpreted to be an "integrated channel manager" since it has the functionality as the integrated channel manager. That is, it acts in the same manner as the integrated channel manager of the applicant, allowing for services to be independent of all network elements. In addition to this, the operations gateway like the integrated channel manager interfaces with both the service networks and the network systems. Although the term channel doesn't appear in the reference Burt et al, the channel structure is inherent in the system, since remote communication with a network is taking place. The channels are merely the means of delivery of the service requests and services. As well, the use of the term layer is not explicit in the cited references of Burt et al, however they exist in the system. The Microsoft Press Computer Dictionary (Copyright 1994, Pp 233) defines the term "layer" in communications and distributed processing as being a set of structures and routines that handle a particular class of events. Clearly, the agents defined in Burt et al act as an interface layer between the operations gateway and the networks and support systems (See Fig. 2) since as an aggregate, they are responsible for providing the function of facilitating communications between the networks and support systems (Col 5 lines 36-41).

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

11. Claims 4 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Burt et al as applied to claims 1-3 above, and further in view of Randle (5,787,403). The reference of Burt et al fails to teach the financial service channels as comprising at least two of an automated teller machine, a self service sales terminal, a home banking system, a digital telephone connection, a financial services branch office, a financial branch sales office, and an interactive television system. Similarly it fails to disclose the business application services as comprising at least one of a transaction processing host computer, an item processor, a relationship management database, a financial call center, and an external financial database.

Randle discloses a system where customers can obtain access to financial and non-financial information products and services via customer operable transceivers at remote locations. These transceivers are taught as comprising any electronic device that can transmit and /or receive data, including an ATM machine and interactive television among other possibilities (Col. 3 lines 48-54). Randle also discloses the system as connecting to a financial institution's existing databases (Col. 2 lines 64-65). Burt et al teaches a network architecture for providing integrated services

but doesn't restrict either the number of those services or the specifics of the networks used to access those services (Col. 5 lines 27-31, Col. 4 lines 41-48). In fact, Burt et al provides a system which is ideally suited to handling a large number of services accessed through a plurality of network channels since the operations gateway can integrate those services thus avoiding the need for a direct channel to service connection for each new network or service added. Randle shows that the use of an ATM and interactive television to access financial services was well known in the art at the time, and that external databases were well known to be accessed by financial transaction systems. The ATM and interactive television service channels provide the advantage of convenience in that they do not have to be situated in a particular location to be accessed. They would therefore provide potential customers with motivation for using the system and so it would have been obvious to include them as service channels. An external financial database would be a very useful service application for an integrated services transaction system. This is expressly so because this type of system can accommodate a large number of service channels connected to any particular application service in a channel-independent manner, and taking advantage of that integrated structure, such a system can provide a vast number of services to its customers in an efficient cost-effective manner. Financial databases contain large amounts of important information and would be an ideal service application in the system of Burt et al. Here, customers could access these databases from any channel at all, and no direct channel-specific connection would be required. Therefore, the customer gets the advantage of convenient access to financial databases while the network operates in an efficient, cost-effective manner. It

would then have been obvious to modify the system of Burt et al to include an external financial database as an application service.

12. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Burt et al as applied to claims 1-3 above, and further in view of PR Newswire Association Inc. Article (2/12/90),"NCR Releases Architecture Base For Future Model Of Computing--Open Cooperative Computing Architecture". Burt et al fails to disclose the layers L1, L2, L4 and L5 of the integrated channel manager of claim 6, along with the specified functionality of each layer, although the layer L3 is essentially the integrated channel manager of claim 1. The PR Newswire Association Inc article discloses the OCCA structure as including 5 layers. The Human Interface Layer performs the function of the layer L1 of claim 6. It provides a user interface across multiple applications and operating systems. That is, it allows users to access the systems which are responsible for processing their service requests, so that a transaction may be completed. The Cooperative Services Layer supports the distribution of applications and information across the network and provides a secure, reliable and well managed cooperative environment. Part of providing this environment includes performing the function of layer L2 which is monitoring the operation of the business application services. The distributed system and application enabling services of layers L4 and L5 are taken care of by the Cooperative Services Layer and Application Environment Layer respectively. The Application Environment Layer is responsible for the development of new applications and the integration of existing applications. By including those specific layers ,with their specified functions, in an integrated channel manager, one would get the

advantage of having a secure, reliable transaction system which would allow new applications to be added and be integrated with all existing services without the need for channel specific connections to service providers. It would have been obvious then to one skilled in the art to combine what is taught about the OCCA structure to the system of Burt et al to get the integrated channel manager of claim 6.

13. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Burt et al and PR Newswire article, "NCR Releases Architecture Base for Future Model of Computing -- Open, Cooperative Computing Architecture --" as applied to claim 6 above, and further in view of Entersoft White paper on NCR TOP END (2/4/96), section entitled, "The Industry on TOP END". This document discloses NCR TOP END as possessing, among other attributes, transaction monitoring capabilities, the enabling of distributed applications to communicate with each other, and the ability to provide critical services needed to manage the execution of applications. Thus it would be able to provide for the functions designated to layers 2, 4 and 5 in claim 6. The advantage of using NCR TOP END middleware is that it provides a vast number of middleware services and posseses a unique message passing system. The paper discloses that this unique messsage passing system allows distributed applications to talk to each other. Thus it would have been obvious to one skilled in the art that NCR TOP END middleware possesses characteristics which make it ideal for providing application enabling and distributed system services while at the same time it is well suited to monitoring any transactions taking place.

14. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Burt et al as applied to claims 1-3 above, and further in view of Randle, Huegel (5,239,480) and Marcous et al (5,650,604). Burt et al fails to teach the financial service channels as comprising retail service channels including at least two of a point of sale service, an automatic vending service and a loyalty card service. Burt et al also fails to teach an operation means as comprising a relational database. Huegel discloses a self-service terminal for selecting and dispensing tickets (Col. 1 lines 7-9), Randle discloses the use of point of sale terminals as part of a remote banking system (Col. 3 line 53) and Marcous et al discloses the storage of electronic funds transfer transaction data in relational databases as a function of an electronic funds transfer system (Col. 7 lines 20-22). Although Burt et al fails to teach these specific service channels and operation means, Burt et al provides a system where any number of specific services, channels and operation means can be utilized without changing the network to add new and expensive channel specific connections to services or operation means. Therefore the system of Burt et al is not limited to a specific type of application, and can encompass all kinds of remote transactions and information access. The advantage of combining the specific service channels of Randle and Heugel and the operation means described in Marcous et al with the system of Burt et al is the advantage of convenience. Making an automated vending service and point of sale terminal part of a multi-service transaction system gives the customer a convenient way to access retail services and make transactions without the need for either a human mediator or cash to complete the transaction. Such transactions can be completed at any time of day from a remote location. It would have been

obvious then to one skilled in the art to include these specific service channels as part of a multi-service transaction system. Having a relational database as a business operation means in an integrated services transaction system gives the advantage of accurate record keeping of customer transactions for data-mining purposes. The integrated services system, because of its specific architecture, allows for customer transaction data to be recorded across all channels, not just for a single channel. Therefore one can get comprehensive data on all transactions made by a single customer, and this data can be mined for useful information for the purposes of marketing to customers. It would have been obvious to add a relational database to the system of Burt et al since the database provides a means for storage of and easy access to the valuable information captured by using such a system.

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kevin Bonavito whose telephone number is (703) 305-9769. The examiner can normally be reached on Monday-Friday from 8:00 to 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Todd Voeltz, can be reached on (703) 305-9714. The fax phone number for the organization where this application or proceeding is assigned is (703) 308-5356.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

kfb

November 12, 1998

ROBERT A. WEINHARDT
PRIMARY EXAMINER